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EXAMINER	
BATTAGLIA, MICHAEL V	
ART UNIT	**PAPER NUMBER**
2652	

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/994,693	JEONG ET AL.	
	Examiner	Art Unit	
	Michael V. Battaglia	2652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 July 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19 and 21-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19 and 21-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Opheij et al (hereafter Opheij) (US 5,712,841) in view of Yamamoto et al (hereafter Yamamoto) (US 5,757,754) and further in view of Oohchida et al (hereafter Oohchida) (US 6,584,060).

In regard to claim 1, Opheij discloses an optical pickup device, comprising: a lead frame package (Figs. 1 and 2, element 3) having a sub-mount (Fig. 2, element 9), a laser source (Fig. 2, element 7) mounted on said sub-mount to emit a laser beam on a first path directly toward a transmission-type refraction grating (Fig. 2, element 29), the transmission-type refraction grating is for dividing said beam into a plurality of beams including a main beam and two sub beams which are incident to an optical medium (Fig. 3, element 43 and Col. 4, lines 55-57), and an optical element (Fig. 2, element 25) to diffract the beams reflected from an optical medium (Col. 4, line 62-Col. 5, line 4), said lead frame package having an opening (Figs. 1 and 2, element 31); and a detecting unit (Figs. 1 and 2, elements 17, 19 and 21) having a substrate (Figs. 1 and 2, element 17) and a photo detector (Figs. 1 and 2, element 21) mounted on said substrate, said substrate located external to said lead frame package (Figs. 1 and 2). Opheij does not disclose a reflective element to reflect said beam onto a first path directly toward the transmission-type refraction grating and does not disclose that the optical element to diffract the beams reflected from the optical medium is a hologram optical element. It is noted that the first path of Opeij is in a path toward the optical

medium (Fig. 3) and laser source of Opheij produces the laser beam on the first path without reflection of the laser beam by a reflective element. It is further noted that the optical element of Opheij (Fig. 2, element 25) diffracts only a part of the reflected beams to the photo detector (Col. 4, lines 66-67). Opheij also does not disclose that the positioning of the photo detector in the diffraction path optimizes the reception of diffracted beams from the optical element.

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the positioning of the photo detector of Opheij in the diffraction path of Opheij to optimize the reception of diffracted beams from the optical element, the motivation to optimize the reception of diffracted beams from the optical element.

Yamamoto discloses a reflective element ("mirror" of Col. 16, line 19) to reflect a laser beam (Fig. 6, element LO) emitted from a laser source (Fig. 6, element 117) onto a first path toward an optical medium (Fig. 1, element 105 and Col. 16, lines 4-9). The reflective element and the laser source produce the laser beam on the first path (Fig. 6). Yamamoto further discloses use of the reflective element and the laser source in place of a laser source (Fig. 7, element 118) that emits the laser beam (Fig. 7, element LO) onto the first path toward an optical medium without reflection of the laser beam by a reflective element (Col. 16, lines 10-25) to produce the laser beam on the first path.

Therefore, a reflective element to reflect a laser beam emitted from a laser source onto a first path toward an optical medium with the laser source was an art-recognized equivalent to a laser source that emits the laser beam onto the first path toward an optical medium without reflection of the laser beam by a reflective element at the time of the invention for the purpose of producing a laser beam on a first path toward an optical medium and one of ordinary skill would have found it obvious to use either one including the reflective element of Yamamoto and the laser

source of Yamamoto for producing the laser beam of Opheij on the first path toward the optical medium. It is noted that the first path of Opheij is also directly toward the transmission-type refraction grating of Opheij and as a result, in the device of Opheij in view of Yamamoto, the reflective element of Yamamoto reflects the laser beam onto the first path of Opheij directly toward the transmission-type refraction grating of Opheij.

Oohchida discloses an optical element (Fig. 8, element 51) to diffract the beams reflected from an optical medium to a detecting unit (Fig. 8, element 41). Oohchida further discloses that by using a blazed hologram optical element (Fig. 10B), the diffracted returning light is utilized more efficiently and the S/N ratio and reliability are increased (Col. 18, lines 35-53).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the optical element of Opheij, which diffracts only a part of the reflected beams to the photo detector, with the hologram optical element of Oohchida, the motivation being to utilize diffracted return light more efficiently and increase the S/N ratio and reliability.

In regard to claim 2, Opheij discloses that said detecting unit (Figs. 1 and 2, elements 17, 19 and 21) is disposed at said opening (Figs. 1 and 2, element 31) of said lead frame package, said detecting unit fixed to said lead frame package after being moved to a position to receive said beams diffracted from said hologram optical element (Col. 4, lines 8-13).

In regard to claim 5, Opheij discloses that said reflective element is a mirror (Col. 4, line 31).

2. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Opheij in view of Yamamoto and further in view of Oohchida as applied to claim 1 above, and further in view of Barkan et al (hereafter Barkan) (US 6,637,657).

Opheij discloses the optical pickup devices of claims 1, 6 and 16 having a detecting unit (Figs. 1 and 2, elements 17, 19 and 21). Opheij does not disclose that the detecting unit is a chip-on-board photo diode package.

Barkan discloses that use of a chip-on-board photo diode package for a detecting unit makes the detecting unit smaller and reduces cost (Col. 6, lines 36-40).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a chip-on-board photo diode package for the detecting unit of Opheij in view of Yamamoto and further in view of Oohchida as suggested by Barkan, the motivation to reduce the size and cost of the detecting unit.

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Opheij in view of Yamamoto and further in view of Oohchida as applied to claim 1 above, and further in view of Sakakibara et al (hereafter Sakakibara) (JP 09-213989).

Opheij discloses the optical pickup devices of claims 1, 6 and 16 having a detecting unit (Figs. 1 and 2, elements 17, 19 and 21). Opheij does not disclose that the detecting unit is a flip-chip package.

Sakakibara discloses that use of a flip-chip package for a detecting unit reduces the size of the detecting unit (Abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a flip-chip package for the detecting unit of Opheij in view of Yamamoto and further in view of Oohchida as suggested by Sakakibara, the motivation to reduce the size of the detecting unit.

4. Claims 6, 7, 16, 17 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Opheij in view of Oohchida.

In regard to claim 6, Opheij discloses an optical pickup device, comprising: a lead frame package (Figs. 1 and 2, element 3) having a sub-mount (Fig. 2, element 9), a light source (Fig. 2, element 7) mounted on said sub-mount and emitting a laser beam, a transmission-type diffraction grating element (Fig. 2, element 29) dividing said beam into a main and two sub beams, which are incident to an optical medium (Fig. 3, element 43 and Col. 4, lines 55-57), and an optical element (Fig. 2, element 25) diffracting said beams reflected from said optical medium onto a diffraction path (Col. 4, line 62-Col. 5, line 4), said lead frame package having an opening (Figs. 1 and 2, element 31) formed beside said light source (Figs. 2 and 3); and a detecting unit (Figs. 1 and 2, elements 17, 19 and 21) having a substrate (Figs. 1 and 2, element 17) and a photo detector (Figs. 1 and 2, element 21) mounted on said substrate, wherein said substrate is located external to said lead frame package (Figs. 1 and 2) and said photo detector is positioned in the diffraction path such that the photo detector is placed to receive the diffracted beams from the optical element (Figs. 1 and 2).

In regard to claim 16, Opheij discloses an optical pickup device, comprising: a lead frame package (Figs. 1 and 2, element 3) having a sub-mount (Fig. 2, element 9), a light source (Fig. 2, element 7) mounted on said sub-mount and emitting a laser beam which is incident to and reflected from an optical medium (Fig. 3, element 43 and Col. 4, lines 55-57), and an optical element (Fig. 2, element 25) diffracting said beams reflected from said optical medium onto a diffraction path (Col. 4, line 62-Col. 5, line 4), said lead frame package having an opening (Figs. 1 and 2, element 31) formed beside said light source (Figs. 2 and 3); and a detecting unit (Figs. 1 and 2, elements 17, 19 and 21) having a substrate (Figs. 1 and 2, element 17) and a photo detector (Figs. 1 and 2, element 21) mounted on said substrate, wherein said substrate located external to said lead frame package (Figs. 1 and 2) and said photo detector is positioned in the diffraction path

such that the photo detector is placed to receive the diffracted beams from the optical element (Figs. 1 and 2).

In regard to claim 21, Opheij discloses a process for manufacturing an optical pickup device, comprising the steps of: providing a lead frame package (Figs. 1 and 2, element 3) having a sub-mount (Fig. 2, element 9), a light source (Fig. 2, element 7) mounted said sub-mount and emitting a laser beam which is incident to and reflected from an optical medium (Fig. 3, element 43 and Col. 4, lines 55-57), and an optical element (Fig. 2, element 25) diffracting said beams reflected from said optical medium onto a diffraction path (Col. 4, line 62-Col. 5, line 4); providing a detecting unit (Figs. 1 and 2, elements 17, 19 and 21) having a substrate (Figs. 1 and 2, element 17) and a photo detector (Figs. 1 and 2, element 21) mounted on said substrate, said substrate is located external to said lead frame package (Figs. 1 and 2); locating said detecting unit at an opening (Figs. 1 and 2, element 31) formed beside said light source of said lead frame package (Figs. 1 and 2 show the opening formed beside said light source and the detecting unit to be located at the opening (note that the "locating" is inherent for the detecting unit to be located at the opening)); moving said detecting unit with respect to said lead frame package into the diffraction path such that the photo detector is placed to receive the diffracted beam from the optical element (note that the moving is inherent for the photo detector to be placed to receive the diffracted beam from the optical element as shown in Figs. 1 and 2); and fixing said detecting unit to said lead frame package (Col. 4, lines 8-13).

Opheij does not disclose that the optical element to diffract the beams reflected from the optical medium is a hologram optical element. It is noted that the optical element of Opheij (Fig. 2, element 25) diffracts only a part of the reflected beams to the photo detector (Col. 4, lines 66-67). Opheij also does not disclose that the photo detector, which is placed to receive the diffracted

beams from the optical element, is optimally placed to receive the diffracted beams from the optical element.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to optimally place the photo detector of Opheij, the motivation being for the photo detector to be optimally placed.

Oohchida discloses an optical element (Fig. 8, element 51) to diffract the beams reflected from an optical medium to a detecting unit (Fig. 8, element 41). Oohchida further discloses that by using a blazed hologram optical element (Fig. 10B), the diffracted returning light is utilized more efficiently and the S/N ratio and reliability are increased (Col. 18, lines 35-53).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the optical element of Opheij, which diffracts only a part of the reflected beams to the photo detector, with the hologram optical element of Oohchida as suggested by Oohchida, the motivation being to utilize diffracted return light more efficiently and increase the S/N ratio and reliability.

In regard to claim 7, Opheij discloses that said detecting unit (Figs. 1 and 2, elements 17, 19 and 21) is disposed at said opening (Figs. 1 and 2, element 31) of said lead frame package, said detecting unit fixed to said lead frame package (Col. 4, lines 8-13).

In regard to claim 17, Opheij discloses that said detecting unit (Figs. 1 and 2, elements 17, 19 and 21) is disposed at said opening (Figs. 1 and 2, element 31) of said lead frame package, said detecting unit fixed to said lead frame package after being moved to a position to receive said beams diffracted from said hologram optical element (Col. 4, lines 8-13).

5. Claims 8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Opheij in view of Oohchida as applied to claims 6 and 16 above, and further in view of Barkan et al (hereafter Barkan) (US 6,637,657).

Opheij discloses the optical pickup devices of claims 6 and 16 having a detecting unit (Figs. 1 and 2, elements 17, 19 and 21). Opheij does not disclose that the detecting unit is a chip-on-board photo diode package.

Barkan discloses that use of a chip-on-board photo diode package for a detecting unit makes the detecting unit smaller and reduces cost (Col. 6, lines 36-40).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a chip-on-board photo diode package for the detecting unit of Opheij in view of Oohchida as suggested by Barkan, the motivation to reduce the size and cost of the detecting unit.

6. Claims 9 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Opheij in view of Oohchida as applied to claims 6 and 16 above, and further in view of Sakakibara et al (hereafter Sakakibara) (JP 09-213989).

Opheij discloses the optical pickup devices of claims 6 and 16 having a detecting unit (Figs. 1 and 2, elements 17, 19 and 21). Opheij does not disclose that the detecting unit is a flip-chip package.

Sakakibara discloses that use of a flip-chip package for a detecting unit reduces the size of the detecting unit (Abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a flip-chip package for the detecting unit of Opheij in view of Oohchida as suggested by Sakakibara, the motivation to reduce the size of the detecting unit.

7. Claims 10, 11 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Opheij in view of Oohchida and further in view of Yamashita (US 6,363,047).

In regard to claim 10, Opheij discloses an optical pickup device, comprising: a lead frame package (Figs. 1 and 2, element 3) having a sub-mount (Fig. 2, element 9), a light source (Fig. 2, element 7) mounted on the sub-mount and to emit a laser beam, and an optical element (Fig. 2, element 25) to diffract said beam reflected from an optical medium onto a diffraction path (Fig. 3, element 43 and Col. 4, line 62-Col. 5, line 4), said lead frame package having an opening (Figs. 1 and 2, element 31) formed beside said light source (Figs. 2 and 3); and a detecting unit (Figs. 1 and 2, elements 17, 19 and 21) having a substrate (Figs. 1 and 2, element 17) and a photo detector (Figs. 1 and 2, element 21) mounted on said substrate, said substrate located external to said lead frame package (Figs. 1 and 2) and said photo detector is positioned in the diffraction path for the reception of diffracted beams from the optical element (Figs. 1 and 2). Opheij does not disclose that the optical element to diffract the beams reflected from the optical medium is a hologram optical element. Opheij also does not disclose a reflective element to direct said beam onto the optical medium. It is noted that the optical element of Opheij (Fig. 2, element 25) diffracts a part of the reflected beams (Col. 4, lines 66-67). Opheij also does not disclose that the positioning of the photo detector in the diffraction path optimizes the reception of diffracted beams from the optical element.

It would have been obvious to one of ordinary skill in the art at the time the invention was made for the positioning of the photo detector of Opheij in the diffraction path of Opheij to optimize the reception of diffracted beams from the optical element, the motivation to optimize the reception of diffracted beams from the optical element.

Oohchida discloses an optical element (Fig. 8, element 51) to diffract the beams reflected from an optical medium to a detecting unit (Fig. 8, element 41). Oohchida further discloses that by using a blazed hologram optical element (Fig. 10B), the diffracted returning light is utilized more efficiently and the S/N ratio and reliability are increased (Col. 18, lines 35-53).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the optical element of Opheij, which diffracts only a part of the reflected beams to the photo detector, with the hologram optical element of Oohchida as suggested by Oochida, the motivation being to utilize diffracted return light more efficiently and increase the S/N ratio and reliability.

Yamashita discloses a lead frame package (Fig. 8, element 30) having a reflecting element (Fig. 8, element 31) to direct a laser beam onto an optical medium. Yamashita discloses that by using the reflecting element, the optical head device is made more compact (Col. 8, lines 34-38).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made for the lead frame package of Opheij in view of Oohchida to include the reflecting element of Yamashita as suggested by Yamashita, the motivation being to make the optical head device more compact.

In regard to claim 11, Opheij discloses that said detecting unit (Figs. 1 and 2, elements 17, 19 and 21) is disposed at said opening (Figs. 1 and 2, element 31) of said lead frame package, said detecting unit fixed to said lead frame package (Col. 4, lines 8-13).

In regard to claim 15, Yamashita discloses that said reflective element is a mirror (Col. 8, line 34).

8. Claims 12 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Opheij in view of Oohchida and in further view of Yamashita as applied to claim 10 above, and further in view of Kouno (US 6,404,709).

Opheij discloses the optical pickup devices of claim 10 having a transmission-type diffraction grating element (Fig. 2, element 29) mounted within a lead frame package (Figs. 1 and 2, element 3) and dividing a laser beam into a plurality of beams including a main and two sub beams which are incident to an optical medium from the lead frame package (Col. 4, lines 55-57). The reflective element of Opheij in view of Oohchida and in further view of Yamashita directs the laser beam to an optical medium. Opheij in view of Oohchida and in further view of Yamashita does not disclose a reflection-type diffraction grating element dividing said beam emitted from said light source into a plurality of beams including main and two sub beams reflected toward said optical medium.

Kouno discloses a reflection-type diffraction grating element (Fig. 1, element 15b) mounted within a lead frame package (Fig. 1, elements 10 and 100) and dividing a beam emitted from a light source (Fig. 1, element 41) into a plurality of beams including main and two sub beams reflected toward said optical medium from the lead frame package (Col. 5, lines 15-22 and 54-57). Kouno (Col. 5, lines 15-22 and 54-57) further discloses use of the reflection-type diffraction grating element in place of transmission-type diffraction grating element (Fig. 1, element 15a) and a reflective element (Fig. 1, element 16).

Therefore, a reflection-type diffraction grating element was an art-recognized equivalent to a transmission-type diffraction grating element with a reflective element at the time of the invention for the purpose of separating a beam into plural beams to be emitted from a lead frame package toward the same direction and one of ordinary skill would have found it obvious to use either one

including the reflection-type diffraction grating element of Kouno for separating and directing the beam of Opheij in view of Oohchida and in further view of Yamashita in the manner suggested by Opheij in view of Oohchida and in further view of Yamashita. It is noted that for the reflection-type diffraction grating element to emit the plural beams from a lead frame package, the reflection-type diffraction grating element must be mounted within the lead frame package.

9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Opheij in view of Oohchida and in further view of Yamashita as applied to claim 10 above, and further in view of Barkan et al (hereafter Barkan) (US 6,637,657).

Opheij discloses the optical pickup devices of claims 1, 6 and 16 having a detecting unit (Figs. 1 and 2, elements 17, 19 and 21). Opheij does not disclose that the detecting unit is a chip-on-board photo diode package.

Barkan discloses that use of a chip-on-board photo diode package for a detecting unit makes the detecting unit smaller and reduces cost (Col. 6, lines 36-40).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a chip-on-board photo diode package for the detecting unit of Opheij in view of Oohchida as suggested by Barkan, the motivation to reduce the size and cost of the detecting unit.

10. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Opheij in view of Oohchida and in further view of Yamashita as applied to claim 10 above, and further in view of Sakakibara et al (hereafter Sakakibara) (JP 09-213989).

Opheij discloses the optical pickup devices of claims 1, 6 and 16 having a detecting unit (Figs. 1 and 2, elements 17, 19 and 21). Opheij does not disclose that the detecting unit is a flip-chip package.

Sakakibara discloses that use of a flip-chip package for a detecting unit reduces the size of the detecting unit (Abstract).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a flip-chip package for the detecting unit of Opheij in view of Oohchida as suggested by Sakakibara, the motivation to reduce the size of the detecting unit.

11. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Opheij in view of Oohchida as applied to claim 21 above, and further in view of Maeda (US 4,926,036).

Opheij discloses the optical pickup device of claim 21 having a photo detector, moving a detecting unit with respect to a lead frame package, and fixing the detecting unit to the lead frame package (Col. 4, lines 8-13). Opheij does not disclose monitoring a signal obtained by said photo detector during movement of said detecting unit with respect to said lead frame package; and fixing said detecting unit to said lead frame package when said signal is in a predetermined range.

Maeda discloses monitoring a signal obtained by a photo detector during movement of a detecting unit to put the light detector in a predetermined position or range (Col. 2, lines 29-36).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to monitor a signal obtained from the photo detector of Opheij in view of Oohchida during movement of said detecting unit with respect to said lead frame package as suggested by Maeda; and to fix the detecting unit of Opheij in view of Oohchida to the lead frame package when the signal is in a predetermined range, as suggested by Maeda, the motivation being to accurately position the detecting unit in a position light receiving area.

Response to Arguments

12. Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael V. Battaglia whose telephone number is (571) 272-7568. The examiner can normally be reached on 5-4/9 Plan with 1st Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael Battaglia

BRIAN E. MILLER
PRIMARY EXAMINER